

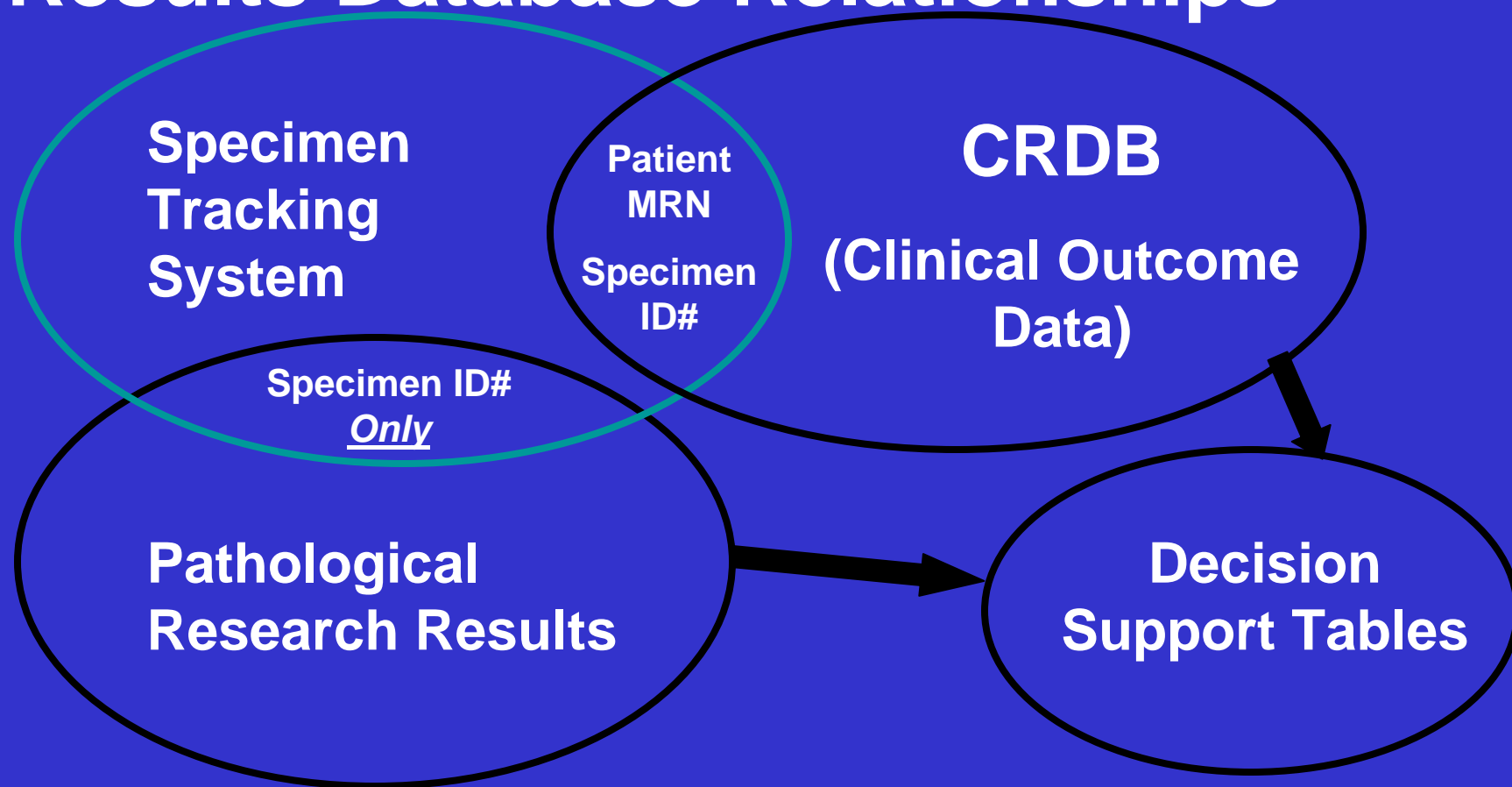
# MSK Specimen Tracking System Goals

1. Coherent management of tissue requests
2. Information management of resource depletion
3. Linkage of distributed specimens with clinical outcome data
4. Ability to distribute specimens and related data anonymously
5. Improved accession of tissue
6. Ability to reserve tissue either before or after banking



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# Specimen Tracking & Research Results Database Relationships



CRDB = Clinical Research Database



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# Data Entry Forms / Tables

- **Specimen Accession Form**
  - Specimen Accession
  - Specimen Part
  - Specimen Bank
  - Specimen Bank Detail
- **Specimen Request Form**
  - Specimen Request
  - Specimen Request Detail
- **Specimen Distribution Form**
  - Specimen Distribution



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# Specimen Accession Tables

- **Specimen Accession**
  - Accession of individual specimens; clinical details about the patient from whom the specimen was obtained
- **Specimen Part(s)**
  - Details about the individual part(s) that are created from a single surgical procedure
- **Specimen Bank**
  - All specimens received by the bank
- **Specimen Bank Detail**
  - Details about all specimens and their distribution



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# Specimen Accession: Data Elements

- Patient Identifiers & Diagnosis Information
- Pathology Date & Accession #
- Procurement Date
- Service Code
- Specimen Part #
- Specimen Identifiers (Site and Cell Type)
- Bank #
- Specimen Type (e.g., Tissue, Blood)
- Amount of Specimen Available
- Distribution ID
- Allocation Time
- Distribution Time



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# Specimen Accession Form (Page 1)

CRDB 3.3.042 - [Specimen Accession] Page 1 of 2

File Edit Page Section Record Item Query Window Help

**SPECIMEN ACCESSION FORM**

**Patient Name (Last Name, First Name)**  
 MOUSE MICKEY

**Patient MRN**  
 TEST-018003

**Protocol ID**  
 T-TEST

**Registration Date**  
 07/10/1996 00:00:00

**Sex**  
 1 Male

**Race**  
 3 Black Non Hispa

**DOB**  
 01/02/1927

**Patient Disease Information:**

**Service**  
 TEST Testing Department

**Accession Number**  
 12345

**Procurement Date**  
 10/23/2003

**Age**  
 76

**Operation Date**  
 10/21/2003 00:00:00

**Pathology Time**  
 10/22/2003 00:00:00

**Current Disease**  
 6 Lung cancer

**Disease Status**  
 1 Primary Only

**Status Date**  
 05/01/2003

**Staging System ID**  
 1 AJCC - American

**Stage**  
 I T1,N0,M0, T2,N

**T Stage**  
 1 T <=3cm surr by

**N Stage**  
 0 No regional LN rr

**M Stage**  
 0 No distant metast

**Grade**  
 1 Well differentiate

**Diagnosis Note**

**Specimen Detail Information**

Part No.	Sub No.	Procedure CPT Code	Procedure Specify	Site	Sub Site	SubSubSite	Site S
1	1	32140	REMOVAL OF LUN	6	Lung	1	Lingula
2	1	38500	BIOPSY/REMOVAL	12	Lymph Node		

Enter the Value of Service Code  
 Count: \*1 <List>

# Specimen Accession Form (Page 2)

CRDB 3.3.042 - [Specimen Accession] Page 2 of 2

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**SPECIMEN ACCESSION FORM**

Patient Name (Last Name, First Name) Patient MRN Protocol ID Registration Date

MOUSE MICKEY TEST-018003 T-TEST 07/10/1996 00:00:00

**Specimen Bank**

Accession No.: 12345 Procurement Date: 10/23/2003

Bank Code	Specimen Type	Spc Seq ID	Spc Bank No.	Notes	OCT T	OCT N	NUN T	NUN N
TEST	TISSUE	Tissue	100000	TS-100000				

**Specimen Bank Detail**

Create Units Delete Units

Bank Seq ID	Part Num	Part Sub Num	Specimen Quality	Time Lapse (minutes)	Specimen Category	Specimen Unit	Unit Size	Num of Unit
1	1	1	FRESH	Fresh Spec	20	T Tumor	CRYOM Cryomold	1 <1 gram 5
2	1	1	FRESH	Fresh Spec	20	T Tumor	CRYOM Cryomold	1 <1 gram 5
3	1	1	FRESH	Fresh Spec	20	T Tumor	CRYOM Cryomold	1 <1 gram 5
4	1	1	FRESH	Fresh Spec	20	T Tumor	CRYOM Cryomold	1 <1 gram 5
5	1	1	FRESH	Fresh Spec	20	T Tumor	CRYOM Cryomold	1 <1 gram 5
6	1	1	FRESH	Fresh Spec	20	T Tumor	CRYOM Cryomold	1 <1 gram 5
7	1	1	FRESH	Fresh Spec	20	T Tumor	CRYOM Cryomold	1 <1 gram 5

Enter the Value of Specimen Type Count: \*1 <List>



# Specimen Request Tables

- **Specimen Request**
  - Contains information about the individual request for specimens
- **Specimen Request Detail**
  - Information about the types of specimen that are requested (including the specific site(s) and cell type(s) needed to fill the request)



# Specimen Request: Data Elements

- Request ID
- Requester Information
- Request Date
- Distribution Type (e.g., Anonymous)
- Type of Request
  - IRB Protocol
  - Pilot Study
  - Clinical Review
  - Single Patient Request
- Specimen Information (Site and Cell Type)
- Billing Criteria



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# Specimen Request Form (Page 1)

CRDB 3.3.042 - [Specimen Request]

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**SPECIMEN REQUEST FORM** Page 1 of 2

<b>Bank Code</b> TEST	<b>Request ID</b> 150	<b>Request Date</b> 10/23/2003	<b>Finalize Flag</b> N	<b>Request Title</b> Stage I NSCL Specimens
<b>Requester</b> 1192 GERALD, WILLIAM	<b>Cost Center</b> 1234	<b>Department</b> PATH	Pathology	
<b>Institute</b> MSKCC MSKCC	<b>Fund ID</b> 5555	<b>Grant Number</b> 12-12345		
<b>Grant Start Date</b> 01/01/2002	<b>Grant End Date</b> 01/01/2005	<b>Request Type</b> PRP Pilot Research Projec		
<b>Distribution Option</b> Investigator Anonymous	<b>Protocol ID</b>	<b>Protocol Title</b>	<b>PI</b>	
<b>Comments</b>	<b>Prospective?</b> Y	<b>Retrospective?</b> N	<b>Special Handling</b> 3 Quick-Freezing in Lic	
<b>Specimen Usage</b>	<b>Specimen Collection Method</b>		<b>Pick Up Arrangement</b> Call RSA	
<b>Contact Tel Number</b>	<b>Contact Person</b> RSA		<b>Contact Information</b>	

Press Enter to Generate Request ID  
Count: \*0

# Specimen Request Form (Page 2)

CRDB 3.3.042 - [Specimen Request]

File Edit Page Section Record Item Query Window Help

**SPECIMEN REQUEST FORM** Page 2 of 2

**Bank Code** TEST **Request ID** 150 **Request Date** 10/23/2003 **Request Title** Stage I NSCL Specimens

**Requester** 1192 GERALD, WILLIAM **Protocol ID** **Finalize Flag** N **Distribution Option** Investigator Anonymous

**Disease** 6 Lung cancer **Disease Status** 1 Primary Only **Minimum Size** 1 <1 gram **Minimum Unit** 1

Specimen Type	Charge	Specimen Quality	Histology	Sub Histology	Sub Sub Histology	Speci
TISSUE	Tissue	77.07	FRESH	Fresh Specim	143	NSCLC

Enter the Specimen Type Code  
Count: \*0 <List>

- **Specimen Distribution Table**
  - Information about specimens distributed from the bank. This process includes:
    - Selection of Current Requests
    - Ability to Query Available Specimens in Bank
    - Distribution of Specimens Based on Patient's Consent Status
    - Anonymization of Information
- **Specimen Distribution Data Elements**
  - Distribution ID
  - Request ID
  - Additional Data From Previous Tables by Way of Hidden Patient Identifiers



# Specimen Distribution Form (Page 1)

CRDB 3.3.042 - [Specimen Distribution Form] \_ \_ X

File Edit Page Section Record Item Query Window Help \_ \_ X

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**SPECIMEN DISTRIBUTION FORM** Page 1 of 3

<b>Bank Code:</b> TEST	<b>Request ID:</b> 600	<b>Request Type:</b> PRP Pilot Research	<b>Last Mod Date:</b> 10/23/2003	<b>Finalize Flag:</b> N	<b>Distribution Option:</b> I Investigator Anony
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**Customized Query Criteria:**

<b>Query ID:</b> <input type="text"/>	<b>Query Description:</b> <input type="text"/>	<b>Save Parameter</b>	<b>Clear Parameters</b>
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**Specimen Search Criteria:**

<b>Specimen Bank Number:</b> <input type="text"/>	<b>MRN</b> <input type="text"/>	<b>Last Name</b> <input type="text"/>	<b>First Name</b> <input type="text"/>	<b>Reserved Request ID</b> <input type="text"/>	<b>Protocol ID</b> <input type="text"/>
<b>Disease Code:</b> 6 Lung cancer	<b>Disease Status:</b> 1 Primary Only			<b>Specimen Quality:</b> <input type="text"/>	
<b>Specimen Histology:</b> 143 NSCLC	<b>Specimen Sub Histology:</b> <input type="text"/>			<b>Specimen Unit:</b> <input type="text"/>	
<b>Specimen Category:</b> <input type="text"/>	<b>Specimen Site:</b> <input type="text"/>				

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<b>Notes for pending request:</b> <input type="text"/>	<b>Comments</b> <input type="text"/>
---	---

**Search**

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Patient's histology code  
Count: \*0 <List>

# Specimen Distribution Form (Page 2)

CRDB 3.3.042 - [Specimen Distribution Form] Page 2 of 3

File Edit Page Section Record Item Query Window Help

Bank Code Request ID Request Type Last Mod Date: Finalize Flag: Distribution Option:

TEST 600 PRP Pilot Research 10/23/2003 N I Investigator Anony

Dist Mark	Specimen Bank Num	Bank Seq ID	Specimen Type	Disease Code	Disease Status	Specimen Quality	Reserved Protocol ID	Reserved Req ID	Patier Cnst
	TS-100000	1	TISSUE	6 Lung canc	1 Primary Or	FRE Fresh Spec			Yes
	TS-100000	3	TISSUE	6 Lung canc	1 Primary Or	FRE Fresh Spec			Yes
	TS-100000	4	TISSUE	6 Lung canc	1 Primary Or	FRE Fresh Spec			Yes
	TS-100000	5	TISSUE	6 Lung canc	1 Primary Or	FRE Fresh Spec			Yes
	TS-100000	6	TISSUE	6 Lung canc	1 Primary Or	FRE Fresh Spec			Yes

Notes for Pending Request:

Retrieve

Request ID	Dist sub ID	Group ID	Prc Age Sex	MSKCC Accession #	PT Cnst	Part Num	Bank Code	Specimen Bank Number	Bank Seq ID	Specir Type
600	1	0	76 M	12345	Yes	1	TEST	TS-100000	2	TISSUE

Distribution

Enter 'Y' to select specimen for distribution  
Count: \*0 v

# Specimen Distribution Form (Page 3)

**CRDB 3.3.025 - [Specimen Distribution Form]**

File Edit Page Section Record Item Query Window Help

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**SPECIMEN DISTRIBUTION FORM** Page 3 of 3

<b>Bank Code:</b> TPS	<b>Request ID:</b> 151	<b>Request Type:</b> PRP Pilot Research	<b>Last Mod Date:</b> 03/12/2002	<b>Finalize Flag:</b> N	<b>Distribution Option:</b> Investigator Anony
-----------------------	------------------------	---	----------------------------------	-------------------------	--

### Distribution Amount Summary

Specimen Type	Expected Amt	Allocated Amt	Distributed Amt
TISSUE	0	0	0

### Finalized Distribution

Request ID	Dist sub ID	Group ID	Prc Age Sex	MSKCC Accession #	PT Csnt	Part Num	Bank Code	Specimen Bank Number	Bank Seq ID	Specir Type

**Notes for Pending Request:**

Enter value for : REQUEST\_ID  
Count: \*0



# Non-Anonymized Distribution

*(patient identity known)*

- Patients give full consent for the specific molecular or genetic tests that will be conducted
- No restrictions are placed on the coding variables (each specimen may be identified by patient identifiers, facilitating a direct link with clinical outcome data)



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# Investigator Anonymized Distribution

*(samples coded but linked to patient identity)*

- Investigators will be unable to identify the patient
- Specimens will be distributed with a coded identification number that will identify the specimen
- Clinical information may also be supplied via the Specimen Bank #



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# Fully Anonymized Distribution

*(irrevocably unlinked to patient identity)*

- Once a specimen is distributed it can **never** be re-linked to the patient
- All clinical data **must** be available at the time of distribution



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## Specimen Accession

SPC_ACCESSION
Specimen code #
MSKCC accession number #
Procurement_date #
Patient ID
Patient diagnosis
Other stuff...

SPC_PART
Part number #
Subpart number #
Specimen site
OR procedure (CPT code)
Specimen histology
Other stuff...

## Specimen Banking

SPC_BANK
Bank ID #
Specimen Type # ( <i>tissue, blood, etc</i> )
Specimen Sequence ID #
Other stuff...

SPC_BANK_DTL
Bank Sequence ID #
Specimen Amount/Unit
Specimen category
IRB protocol ID
Specimen location ( <i>freezer</i> )
Billing Amount
*Distribution ID
Distribution date/time

*If a truly anonymized distribution is performed, the Distribution ID is replaced with all zeroes at distribution, breaking the link to the Specimen Distribution table*

## Specimen Request

SPC_REQUEST
Bank ID #
Request ID #
Requestor Info
Request Date
Request_type ( <i>what's it for?</i> )
Distribution type ( <i>Anonymized, Investigator Anonymized or Not Anonymized</i> )
Other stuff...

*Note that the Specimen Request table is entirely independent of Accession and Banking, to enable requests to be entered (i.e., reservations to be made) for specimens not yet available in the bank*

## Specimen Distribution

SPC_DISTRIBUTION
*Bank ID#
*Request ID #
*Distribution Sub-ID #
<i>Patient identifying information (blank unless non-anonymized distribution is selected)</i>
<i>Any diagnosis/treatment/outcome data that may be required after the link has been broken</i>

*\*These three fields (Bank ID, Request ID and Distribution Sub-ID in the Specimen Distribution table are combined to form the Distribution ID in the Specimen Banking Detail table, which is only filled out when the specimen has been allocated*



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